

Appl. No. 09/475,190
Amdt. Dated August 19, 2005
Reply to Office action of May 27, 2005
Attorney Docket No. P12414/040020-167
EUS/J/P/05-6148

REMARKS/ARGUMENTS

1.) Claim Amendments

The Applicant has amended Claims 1, 37, 38, 43 and 44; Claims 10 and 21 have been cancelled. Applicant respectfully submits no new matter has been added. Accordingly, Claims 1-9, 11-20 and 22-52 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.) Claim Rejections – 35 U.S.C. § 102(b)

The Examiner rejected claims 1-4, 6-10, 12-19, 37-41, 43, 44, 46-52 under 35 U.S.C. § 102(b) as being unpatentable over Larson (US 4,569,042) in view of Soliman (US 6,433,739).

The Applicant appreciates the Examiner's statements and explanations regarding the above rejection and has further amended independent Claims 1, 37, and 43 to more clearly and distinctly claim the subject matter which the Applicant considers as his invention. The limitations as set forth in dependent Claim 10, for example, have now been incorporated into independent Claim 1. In view of the above amendments and the following remarks, the Applicant respectfully requests the Examiner's favorable reconsideration.

As fully disclosed in the application, the present invention is not limited to merely reporting time stamp information or calculating delay time for transmitting a signal from point A to point B. In that regard, in a conventional system, network elements fail to take into consideration whether a transmitting node has a very accurate oscillator, e.g., a GPS receiver, or whether the transmitting node has a relatively inaccurate oscillator, e.g., a short-term stable free-running oscillator, which has not been tuned for a long time. As a result, network nodes in a conventional system would consider all time stamp information or messages as being "equally accurate." As one skilled in the art would understand, such an assumption in a real-time communication system would be undesirable. As a result, the present invention discloses and claims a system wherein all such time related information is not treated as being absolutely or equally "accurate".

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This is accomplished by a transmitting node not only sending a time stamp value when transmitting a message but also its uncertain factor as to the accuracy or certainty of its timing information to the receiving node. This is analogous to a person stating his time and further stating that his old mechanical watch may not be very accurate since it was set over two months ago. As a result, in accordance with the teachings of the present invention, a reply time stamp message includes not only a time of transmission of such a reply message, but also the transmitting node's estimation of a time interval for transmitting the reply message to the receiving node. In accordance with the present invention, the replay time message further includes the transmitting node's uncertainty factor in the accuracy of the estimated time interval. By providing not only the transmission time information, but also the uncertain factor in the accuracy of the time interval for such a transmission, the receiving node is able to determine the "reliability" or "quality" of the received time stamp information and use the information accordingly.

The Applicant respectfully submits that Larson, independently or in combination with Soliman, fails to anticipate or render obvious the novel steps as recited by now amended independent Claims 1, 37 and 43.

In that regard, the Larson reference merely discloses a system where a second node includes a reply time stamp in the reply time message. But, the Larson reference fails to disclose or teach the recited step of including an "estimation of the time interval". However, in rejecting independent Claims 1, 37 and 43, the Examiner incorrectly stated that even though Larson did not expressly disclose transmitting an estimation of a time interval, the transmission of an estimated time interval is well known in the art of communication. The Examiner then referenced Soliman as disclosing such an "estimation of a time interval". However, the Applicant respectfully submits that Soliman merely discloses a system wherein a "round trip delay" is measured. Accordingly, rather than Point A estimating as to how long it would take to transmit a message from Point A to Point B, the Soliman invention instead measures the total actual delay time it would take to transmit a signal from Point A to Point B, and then receiving a reply signal back from Point B. For example, Soliman discloses that such a total delay time calculation "may be done by noting the time at which a signal is transmitted from the

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point of origin of the round trip, knowing the amount of time required to retransmit the signal at the far end of the trip, and noting the time at which the retransmitted signal is received." Accordingly, Soliman calculates the "actual" round-trip time for transmitting a message between Point A and Point B. The present invention, on the other hand, is an "estimation" by the transmission node as to the time delay involved in transmitting a reply message from the transmission node to the receiving node.

Notwithstanding the above, *assuming arguendo* the Examiner's rejection regarding independent Claims 1, 37 and 43 based on Larson and Soliman is correct, the Applicant submits that cited references still fails to disclose or teach a transmitting node including a "uncertain factor in the estimation of the time interval" in the reply time stamp message. As a matter facts, all of the cited references are silent as to including any type of information regarding the accuracy or certainty of its time stamp information in its transmitted message.

As a result, the Applicant respectfully submits that independent Claims 1, 37 and 43 are patentable over the cited references and a Notice of Allowance for those independent claims and their respective dependent claims is earnestly requested.

3.) Claim Rejections – 35 U.S.C. § 103 (a)

The Examiner rejected claims 5, 11, 20, 22-36, 42 and 45 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Soliman further in view of Greer et al. (US 5,697,082).

The Applicant respectfully submits that other than disclosing a system for self-calibrating a clock of a communication terminal using a Kalman filter, the Greer reference likewise fails to disclose or teach the novel steps of including a "time elapsed since a previous time stamp message was transmitted" and an "uncertainty value as to the accuracy of the time elapsed since the previous time stamp message was transmitted." As further explained above, since Larson and Soliman also fail to anticipate or render obvious the novel elements of independent Claim 20, the Examiner's favorable reconsideration and a Notice of Allowance for independent Claim 20 and its dependent claims is respectfully requested.

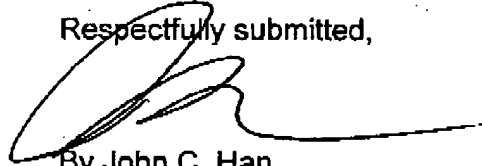
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CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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